

What is claimed is:

1 1. A method of serving content in a packet-switched network comprising
2 the steps of:

3 choosing from a plurality of content distribution networks which content
4 distribution network will respond to a content request from a client;
5 redirecting the client to the chosen content distribution network so that the
6 content request will be served by the chosen content distribution network.

7 2. The method of claim 1 wherein the content distribution network is
1 chosen in accordance with a predetermined policy.

1 3. The method of claim 2 wherein the content distribution network is
2 chosen based on a determination of which of the plurality of content distribution
3 networks is closer to the client.

1 4. The method of claim 2 wherein the content distribution network is
2 chosen based on a measurement of load on the content distribution networks.

1 5. The method of claim 4 wherein the content distribution network is
2 chosen only if the measured load on the content distribution network does not exceed a
3 predetermined capacity reserved on the content distribution network.

1 6. [CONVOLUTED URLs] The method of claim 1 wherein the content
2 to be served by the chosen content distribution network comprises content embedded in a
3 document to be served to the client and wherein the step of redirecting the client to the

4 chosen content distribution network further comprises the step of rewriting references to
5 the embedded content before serving the document to the client.

1 7. The method of claim 6 wherein the reference to the embedded content
2 is rewritten to point to a server in the chosen content distribution network.

1 8. The method of claim 6 wherein the reference to the embedded content
2 is rewritten to point to a domain name served by the content distribution network.

1 9. The method of claim 6 wherein the reference to the embedded content
2 is rewritten so that the original reference may be readily parsed from the rewritten
3 reference.

1 10. The method of claim 9 wherein the chosen content distribution
2 network can utilize the reference to obtain the embedded content if the chosen content
3 distribution network does not have an up-to-date copy of the embedded content in a
4 cache.

1 11. [DNS OUTSOURCING] The method of claim 1 wherein the step of
2 redirecting the client to the chosen content distribution network further comprises the step
3 of having domain name system queries resolve to content served by the chosen content
4 distribution network.

1 12. [A RECORD REDIRECTION] The method of claim 11 wherein the
2 domain name system queries are answered with a network address of content served by
3 the chosen content distribution network.

1 13. [NS RECORD REDIRECTION] The method of claim 11 wherein
2 domain name system queries are answered with a network address of a domain name
3 system server responsible for the chosen content distribution network.

1 14. [CNAME REDIRECTION] The method of claim 11 wherein domain
2 name system queries are answered with a domain name of content served by the chosen
3 content distribution network.

1 15. [TRIANGULATION] The method of claim 11 wherein domain name
2 system queries are forwarded to a domain name server responsible for the chosen content
3 distribution network and which directly answers the domain name system query.

1 16. The method of claim 1 wherein the content distribution network serves
2 the content request from a local cache and wherein the content distribution network has
3 access to a second copy of the content if there is a cache miss.

1 17. [TABLE DRIVEN DISAMBIGUATION] The method of claim 16
2 wherein the content distribution network has a table of associations between references to
3 content served by the content distribution network and references to a second copy of the
4 content served from elsewhere in the network.

1 18. [SEMANTIC MAPPING DISAMBIGUATION] The method of claim
2 16 wherein the content distribution network can transform references to content served by
3 the content distribution network into second references to a second copy of the content
4 served from elsewhere in the network.

1 19. A brokering domain name system server comprising:
2 a domain name system engine which is capable of answering domain
3 name system queries from a client;
4 a policy module which directs the domain name system engine to answer
5 domain name system queries in accordance with a predetermined policy which resolves a
6 domain name to a server in a content distribution network chosen from a plurality of
7 content distribution networks.

1 20. The brokering domain name server of claim 19 wherein the
2 predetermined policy reflects a chosen content distribution network and redirection
3 mechanism for each of a plurality of regions of client network addresses.

1 21. The brokering domain server of claim 19 wherein the policy module
2 further comprises an interface to information received from the plurality of content
3 distribution networks and wherein the policy module modifies the predetermined policy
4 in response to the information.

1 22. The brokering domain server of claim 21 wherein the information
2 further comprises load information and wherein the predetermined policy reflects
3 capacity reserved on each of the plurality of content distribution networks.

1 23. A method of redirecting content requests between content distribution
2 networks, comprising the steps of:
3 receiving a domain name lookup request for content served by a plurality
4 of content distribution networks;

5 choosing one out of the plurality of content distribution networks to serve
6 the content;
7 answering the domain name lookup request in a manner such that a
8 subsequent request for content will be served by the chosen content distribution network.

1 24. A method of redirecting content requests between content distribution

2 networks, comprising the steps of:

3 receiving a request for a document which contains one or more embedded

4 content references;

5 retrieving the document;

6 choosing one out of a plurality of content distribution networks to serve

7 the embedded content;

8 rewriting the document so that the embedded content references point to

9 content stored at the chosen content distribution network; and

10 transmitting the rewritten document.